

Listing of the Claims

1. (Currently Amended) A magnetic resonance imaging system including a gradient coil system comprising an inner coil configuration (1,2,3) and an outer coil configuration (4,5,6) that is positioned substantially coaxially with said inner coil configuration, both coil configurations (1,2,3;4,5,6) being attached to a tubular body (7) located between said two coil configurations and extending substantially coaxially with both said coil configurations, ~~characterized in that~~wherein said tubular body (7) comprises stainless steel rods (10) which are positioned substantially in axial direction.
2. (Currently Amended) A system as claimed in claim 1, ~~characterized in that~~wherein stainless steel rods (10) are present in the central portion of the tubular body (7).
3. (Currently Amended) A system as claimed in ~~any one of the preceding claims~~1, ~~characterized in that~~wherein stainless steel rods (10) extend substantially over the entire length of said tubular body (7).
4. (Currently Amended) A system as claimed in ~~any one of the preceding claims~~1, ~~characterized in that~~wherein said stainless steel rods (10) are connected to each other at both ends (14) of each rod (10).
5. (Currently Amended) A system as claimed in ~~any one of the preceding claims~~1, ~~characterized in that~~wherein said tubular body (7) comprises a stainless steel cylindrical wall (12) having axial slits (13).
6. (Currently Amended) A system as claimed in ~~any one of the preceding claims~~1, ~~characterized in that~~wherein said stainless steel rods (10) are strips positioned substantially in a cylindrical plane (12,16).

7. (Currently Amended A system as claimed in ~~any one of the preceding claims~~1,
~~characterized in that~~wherein a plate-like element (15) is wound into a spiral shape in order
to form a cylindrical wall (16), such that said plate-like element (15) comprises
substantially parallel stainless steel strips, the stainless steel strips extending in
substantially axial direction after the cylindrical wall (16) has been formed.

8. (Currently Amended A system as claimed in ~~any one of the preceding claims~~1,
~~characterized in that~~wherein at least some of said rods (10) comprise cooling channels (18)
for guiding a cooling medium.

9. (Currently Amended A system as claimed in ~~any one of the preceding claims~~1,
~~characterized in that~~wherein at least some of said rods (10) comprise an axially extending
space (19) for accommodating pieces of shim iron.